majority are believed to have been acquired elsewhere. Cases of ancylostomiasis and schistosomiasis are occasionally observed, primarily among non-Bahrainis, yet no indigenous foci of infection are known to exist.

Diseases Spread Chiefly Through the Respiratory Tract

Tuberculosis. Tuberculosis is widespread, but little precise information is available regarding its prevalence in the local population. The disease is believed to be extensive in Arabia, particularly among the Bedouin. In Bahrain, the migration of workers to and from the mainland, overcrowding and the generally low standards of personal hygiene are regarded as factors influencing the spread of the infection. The facilities for diagnosis and treatment are inadequate, The government operates a 13-bed tuberculosis sanatorium and provides treatment for tuberculous cases in its regular hospitals and dispensaries. It also subsidizes the transportation of certain cases to India for treatment, since many individuals do not respond favorably under the climatic conditions prevailing in Bahrain. About 220 to 350 cases were under observation in government institutions annually from November, 1948, to November, 1950. Pulmonary tuberculosis predominates, but a high rate of nonpulmonary infections also is encountered.

Smallpox. Bahrain is especially vulnerable to the introduction of smallpox from the neighboring Persian Gulf territories, Pakistan and India, and outbreaks are recorded at frequent intervals. Large-scale epidemics were reported in 1941-42 and in 1948-50, with sporadic cases in the intervening years. The most recent epidemic started in December, 1948, in the Hora section of Manama, and spread in a series of localized outbreaks, persisting into 1950. Eighty-six cases were transferred to the quarantine hospital in 1949, and about one third of that number the following year. The percentage of unrecognized infections

was also believed to be high in many districts. The fatality rates among the hospitalized cases averaged 6 to 22 per cent. The disease subsided in the summer of 1950, and no cases were observed in 1951.

Vaccination against smallpox is not compulsory, but the health authorities endeavor to promote it in the school population. In 1948-49, a house-to-house campaign was carried on in the infected sections of Manama, and vaccination centers were established in the outlying districts. Vaccination is required of travelers to Bahrain, and persons who arrive without valid certificates of immunization are vaccinated by the medical officers upon landing.

Other Infections. Pneumonia is prevalent: a large proportion of the cases are probably bronchopneumonias. Measles, mumps and whooping cough are endemic, and often epidemic. Chickenpox and poliomyelitis are also endemic, but the reported cases are usually few in number. Meningococcus meningitis is sporadic, and occasional small outbreaks are recorded.

Diseases Spread or Contracted Chiefly Through Contact

Venereal Diseases. Venereal diseases constitute a major problem, due to the transitory nature of a large section of the population. Local medical authorities believe that the syphilitic infection rate approximates 60 to 70 per cent. Numerous mild nonvenereal infections are observed among children, although the familiar manifestations of congenital syphilis are relatively rare. Gonorrhea is widespread, but chancroid and lymphogranuloma venereum are of minor significance. Cases of venereal disease are treated at the isolation hospital and the various dispensaries.

Diseases of the Eyes. Eye infections are prominent throughout this region. Ignorance of the basic principles of hygiene and the prevalence of flies, as well as the irritating effects of sand and wind during the *shamal* seasons, are underlying factors in the spread of trachoma, conjunctivitis and

other eye diseases. Trachoma is widely distributed, and estimates of prevalence range from 35 to 90 per cent, depending upon the locality. Trichiasis is frequent. The most serious effects are often observed among immigrants from Saudi Arabia, the Trucial Coast and Iran. In an average of over 1,200 men patients receiving medical or surgical ophthalmic treatment in the government hospital in each of the two years 1949-50, about 30 per cent were suffering from trichiasis. Special attention is given to the treatment of eye diseases in all the hospitals and dispensaries, and clinics are conducted in some of the boys' schools.

Diseases of the Skin. Mycotic infections of the skin are common, but the children appear to be relatively free from favus. In spite of the low standards of hygiene among the poorer inhabitants, scabies is seldom seen.

Leprosy. Although leprosy is present among the Baharna, it is rare in the Arab community. Cases are found on all the islands, probably with greatest frequency on Sitra. The severity of the infection seems to be decreasing, and the percentage of childhood cases in recent years has been low. The actual number of lepers in the indigenous population is uncertain: it was believed to be about 100 in 1951. No segregation is practiced, but lepers are forbidden to congregate and beg in the towns.

Other Infections. Sporadic cases of tetanus and of tetanus neonatorum occur occasionally. Rabies is not recorded at present.

Diseases Spread by Arthropods

Malaria. Malaria was formerly one of the foremost disease hazards in Bahrain, but in recent years its importance has declined progressively with the expansion of the anopheline control program. The present morbidity is believed to be insignificant in comparison with that encountered before the inauguration of the government's antimalaria campaign in 1939. Treatment statistics are of doubtful value, yet they are

P. 263(B)